Amendments to the Claims:

This listing of claims will replace all prior versions and listing of claims in the application.

Listing of Claims:

1. (Currently Amended) A compiler comprising:

a conversion program,

wherein the conversion program can convert first program descriptions

described by diverting a predetermined program language into circuit descriptions,

the first program descriptions contain register assignment statements with

particular operators and clock boundary descriptions, and which permit circuit

operations to be specified at a cycle precision, and

the circuit descriptions specify hardware realizing the circuit operations

specified by the first program descriptions in a predetermined hardware description

language, and

the register assignment statements function to allocate a variable of the left-

hand side to a register, and need one clock for assignment from the right-hand side

to the left-hand side.

2. (Currently Amended) A compiler comprising:

a conversion program,

wherein the conversion program can convert first program descriptions described by

diverting a predetermined program language can be converted into second program

descriptions using a predetermined program language,

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the first program descriptions contain register assignment statements with

particular operators and clock boundary descriptions , and which permit circuit

operations to be specified at a cycle precision, and

the second program descriptions contain transformed assignment statements

into which the register assignment statements are transformed in order to make

states of preceding cycles referable, and register assignment description insertion

statements which associate variables of the transformed assignment statements with

changes of registers attendant upon cycle changes, in correspondence with the clock

boundary descriptions, and

the register assignment statements function to allocate a variable of the left-

hand side to a register, and need one clock for assignment from the right-hand side

to the left-hand side.

3. (Currently Amended) A compiler comprising:

a conversion program,

wherein the conversion program can convert first program descriptions

described by diverting a predetermined program language into second program

descriptions using a predetermined program language and circuit descriptions,

the first program descriptions contain register assignment statements with

particular operators and clock boundary descriptions, and which permit circuit

operations to be specified at a cycle precision,

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the second program descriptions contain transformed assignment statements

into which the register assignment statements are transformed in order to make

states of preceding cycles referable, and register assignment description insertion

statements which associate variables of the transformed assignment statements with

changes of registers attendant upon cycle changes, in correspondence with the clock

boundary descriptions, and‑

the circuit descriptions specify hardware which is defined by the second

program descriptions, in a predetermined hardware description language, and

<u>the register assignment statements function to allocate a variable of the left-
hand side to a register, and need one clock for assignment from the right-hand side
to the left-hand side.</u> ·

4. (Original) The compiler of claim 1, wherein the predetermined program

language is a C language.

5. (Original) The compiler of claim 1, wherein the hardware description

language is a description language of RTL level.

6. - 20. (Canceled)

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